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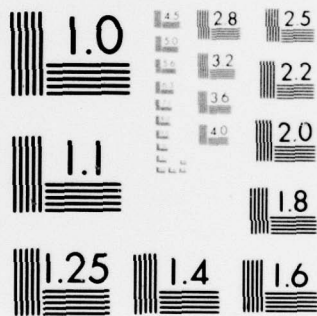
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CHANGES IN
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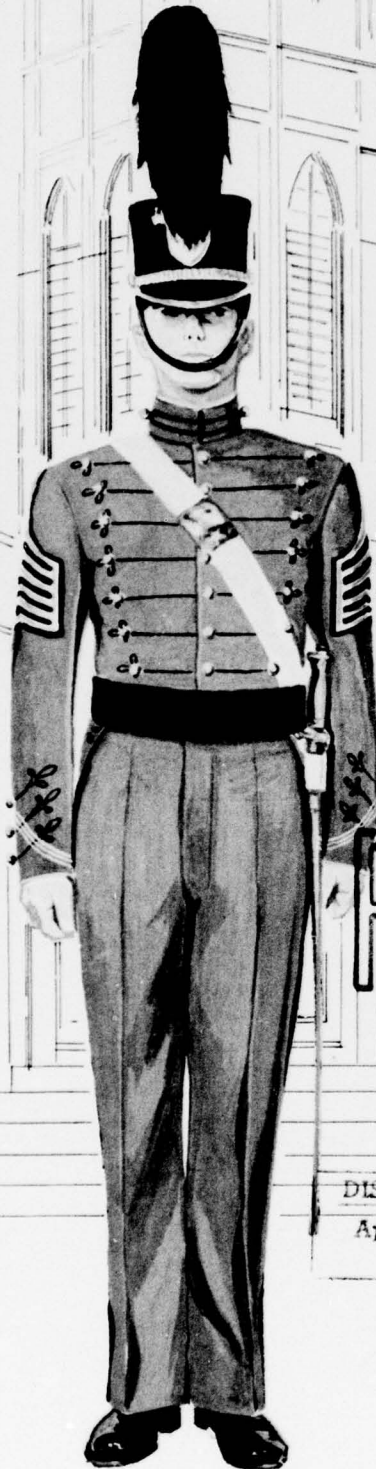
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CHANGES IN SELF-EVALUATION OF CADETS

Report No. 4G0.00-78-016
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ABSTRACT

Comparisons of the self-evaluations by cadets in the Class of 1975 at entrance, and again shortly before graduation, indicate that in 15 of 21 personal traits, cadets' self-evaluations tend to increase during the four years at USMA. However, though remaining high, their self-confidence typically drops significantly in their academic and mathematical abilities, in popularity with the opposite sex, popularity/general, and in cheerfulness. Self-rated leadership, public speaking, and athletic abilities significantly increase. At entrance, a larger percentage of cadets than of other college freshmen are higher than average in all traits except defensiveness, sensitivity to criticism, political liberalism, and artistic ability. Cadets' overall pattern of changes is not typical of those normally occurring in college students, nationally. At entrance, cadets who later separated differed significantly from those who later graduated. A smaller proportion of separated cadets than of graduated cadets perceived themselves as being higher than average in academic ability, leadership ability, drive to achieve, and mathematical ability--a larger proportion of separated cadets were higher than average in stubbornness, sensitivity to criticism, political liberalism, originality, and artistic ability. Objective external data indicated that, as a whole, the cadets' self-evaluations tended to be quite realistic and valid. Implications for action are presented.

NOTE: Any conclusions in this report are not to be construed as official U.S. Military Academy or Department of the Army positions unless so designated by other authorized documents.

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CHANGES IN SELF-EVALUATION OF CADETS*

Background and Problem

Administration of the American Council on Education's "Student Information Form" (ACE's "SIF"), to entering USMA cadets, has repeatedly shown that their self-evaluations on 21 personal traits (including eight abilities) are appreciably higher than are most of those of the typical college freshmen. The reported magnitude of "artistic ability," "defensiveness," and "sensitivity to criticism" are about the same for new cadets and for other male students entering four-year colleges. Only in level of "political liberalism" do cadets typically rate themselves lower than do other entering college students (Houston, 1972 & 1977). Concern has been expressed at the possibility that USMA may tend to undermine the high self-confidence that cadets typically have when they enter. If so, possible remedial actions should be investigated. This area is important also because a person's self-esteem has been shown to significantly predict level of performance; and personal satisfaction felt by an individual from his performance depends upon his level of self-esteem (Greenhaus & Batin, 1974).

The purpose of the present research is to determine what changes occur in cadets' self-evaluations on the 21 traits included in the SIF, and to study the validity (accuracy) of their self-evaluation reports.

Approach

In 1971, new cadets completed the ACE's SIF. One set of questions used five-point Likert Scales and asked the cadet to rate himself on 21 important personal traits "when compared with the average student his own age."

In the "First Class Questionnaire--1975," a random sample of almost half the cadets still in the same USMA class were given parallel questions near graduation (April 1975).** Then the same sample's distribution of self-evaluations at entrance and again at graduation were compared. Cadets' self-confidence in each of the 21 areas at graduation reflects the impact of their experiences since entering West Point on their personal characteristics at entrance (including their initial level of self-confidence), the results of their natural maturation, and any chance factors when responding to the questions. Statistical analyses of these data identified the differences, and trends, and relevant correlates. For selected abilities, the reported self-evaluations, both of cadets and of national samples of college students, were also compared with external measures by standardized tests.

Findings

1. Changes in the Percent of the Class with Higher than "Average" Self-evaluations.

Results of the analyses are summarized in Figures 1 and 2, and Tables 1 and 2. A brief explanation of each set of data, and the major findings are given in this and subsequent sections of this report.

The percentage of cadets at entrance and again near graduation and of male four-year college students at entrance who perceive themselves as being higher than the average student their age, in each of the eight abilities and in the 13 other personal traits, are depicted, respectively, in Figures 1 and 2. In an unselected, normally distributed sample, 31% would be "above average."

Figure 1 shows that new cadets' self-confidence, in spite of being appreciably higher at

*A nontechnical condensation based on a technical report, which is available in draft form to requestors desiring such detail.

**At entrance, the sample of graduates did not differ significantly from all graduates in any of the 21 traits.

entrance than that of other college freshmen, tends to increase markedly in six of the eight abilities during the four years at West Point. Though remaining very high, typically their self-confidence in their academic ability and in their mathematical ability dropped appreciably. Confidence in their athletic ability exhibited the most marked increase in magnitude. Public speaking ability and mechanical ability tie for second place in magnitude of change.

Figure 2 shows that in nine of the 13 other personal traits, cadets typically exhibited increased self-evaluations, the most marked increases being in their sensitivity to criticism and political conservatism. The most appreciable decreases occurred in perceived popularity with the opposite sex, followed by general popularity and cheerfulness. Cadets' overall patterns of changes do not seem to be typical of those occurring normally in college students, nationally; but the only differences for which hard data are available are in cadets' marked increase in their political conservatism, whereas other college students tend to markedly increase in political liberalism and decrease in political conservatism.

At entrance, a markedly lower than the "standard" 31% of cadets had higher than average evaluations (i.e., were select in the low direction) in the last ability listed in Figure 1 and the last three traits in Figure 2. By graduation, they were relatively select in the low direction only in their Political Liberalism and Artistic Ability.

In general, the statistically significant changes tended to be in the direction that increases their uniqueness relative to other entering college students, and seems to move cadets toward the pattern probably typical of Army officers.

2. Relationship Between Cadets' Self-evaluations at Entrance and at Graduation. Figures 1 and 2 showed what happened to the "above average" percentages in the four years at West Point. Information on what happened to self-confidence at all levels, the change in the mean scores, and the correlation between self-evaluations at entrance and just prior to graduation are shown in Table 1. The changes from entrance to graduation in the percent of the graduating class that perceived themselves as better than average provides only general information as to the direction and magnitude of the changes in each self-evaluation on each trait. The cadets in the "top 10%" group at entrance could have increased markedly, and the cadets in the "bottom 10%" group could have decreased in self-confidence, without influencing the data here. In computing the two means for each item, the rating levels from "lowest 10%" to "highest 10%" were assigned score values successively, from "1" to "5," so that the larger the score, the higher the self-evaluation in that area. The scale levels should be sufficiently close to being equal unit scales to provide useful measures of central tendency variance and correlation, and provide further evaluation of the significance, order, and relative magnitude of the typical changes from entrance to graduation.

In spite of the sharp drop in the mean for perceived Academic Ability and Mathematical Ability, the mean change in perceived ability was an increase of 0.154 in the mean for all eight abilities combined. In fact, even with decreases, some of which may be considered desirable, in the means for eight of the 21 traits, the mean overall change for the 21 was an increase of 0.079 points. Regardless of how the data are organized and analyzed, there is no evidence that West Point can be considered to be detrimental to the general self-confidence of cadets.

The correlation coefficients also presented in Table 1 indicate that self-evaluations at the beginning and at the end of the four-year interval have a relatively low to moderate direct relationship. Firstclassmen's level of sensitivity to criticism was the least predictable from new cadets' self-evaluations, but its correlation of .16 statistically was highly significant ($p < .001$). The Fourth Class and the First Class have less than 10% in common (i.e., $r^2 < .10$) for evaluations on four different traits--sensitivity to criticism, political conservatism, leadership ability, and defensiveness.

The most stable self-evaluations over the four-year interval were for the other seven abilities--with correlations of .50 for academic ability and mathematical ability, and of

.48 for mechanical ability, athletic ability, and artistic ability. Even for these abilities, there was considerable shifting in self-confidence. In brief, on most traits, approximately half the cadets (median = 46%) made exactly the same self-evaluations at graduation that they did at entrance, and the other cadets tended more towards an increase in self-ratings (15 traits) than they did toward a decrease (6 traits).

The specific changes on individual traits are more meaningful and useful as guides to possible action. Several of the changes seem to warrant special consideration. The major drop was in the confidence of these cadets in their academic ability relative to others. There is also a small but significant drop in the percent with above average drive to achieve that may be of concern. There is a considerable drop for those initially very high, which is only partially compensated for by the increase for those initially lower. These two areas seem to warrant further investigation in the future.

The drop in perceived popularity (both "general" and "with the opposite sex") may be primarily a realistic result of the antimilitaristic attitudes still very prevalent in the mid-70's. This area would be of more concern if it were not counter-balanced somewhat by the increase in social self-confidence.

The drop in Cheerfulness is in consonance with the statement in the July 1977 Final Report of West Point Study Group (p. 2) of the Department of the Army, "that a relatively humorless atmosphere seems to prevail. . . . A certain grimness marks many of the cadets. . . .". However, this change is also consonant with the hypothesis that it reflects seriousness of purpose and perhaps maturation, more than it does a deficiency in humor.

One other area of special significance is the highly significant increase in political conservatism and decrease in liberalism. This change is exactly the opposite of the change characteristic for college students nationally. Gallup (1975) reported, "college students move sharply to the left as they advance from freshmen to seniors." He continues, "we find . . . across the country there is the same progressing trend, a liberalizing trend in attitudes toward sex, drugs, alcohol, and so on. Students change their views markedly between freshman and senior years." So do West Point cadets, but most typically in the opposite direction. It should not be surprising that, from the hundreds of variables analyzed in the study of service academy attrition by the Government Accounting Office, the seven characteristics described in their "A Dropout Profile" included the following: "He tended to characterize his political attitudes as more liberal than those of the current student, and he took a more liberal stance on such controversial social issues as marijuana legislation, divorce, abortion, and the all-volunteer force" (GAO, 1976, Inclosure C, p. 76).

3. Relationships Between Self-evaluations at Entrance and Attrition. Because of the special concern that has been shown about attrition of cadets, Table 2 compares the percent of entering cadets who separated from USMA with the percent of those who graduated that, at entrance, had self-ratings higher than "average," and provides other relevant data. (Table 2 provides also for those desiring to make more detailed comparisons than are convenient from graphs or who want to see the level-of-significance figures.)

The total pattern on the 21 traits for college men is more like that for separated cadets ($r = .910$), than it is like the pattern for graduating cadets ($r = .800$). As has been reported frequently in previous research (Bridges, 1975; and GAO, 1976), the cadets separating from the Academy tend to be like those retained, but also to be more like civilian college students in interest, values, and capabilities than do those who are retained. However, the general pattern on these 21 traits for separated cadets is even more similar to that for graduating cadets ($r = .976$) than it is to that for all college men.

Even more insightful are the specific differences revealed by the traits on which the two groups differ significantly. On the four traits in which cadets are highest, the separated cadets were appreciably lower at entrance than those who later graduated.* The

*More immediate implications and relevance to admissions are indicated in T. Davidson's MFR, dtd 30 Sep 77, subject: "Qualification of Candidates to USMA."

extent to which these relatively lower self-evaluations reflect only realistic perception of deficiencies should be determined before efforts to develop measures of self-confidence in specific areas are considered. Furthermore, unless a person is blocked by deep-seated personality problems, a cadet's unrealistic self-confidence in desired areas can be corrected. Except for the traits most related to academic success, the graduating cadets tended to evaluate themselves even higher than they did at entrance. On four traits (Athletic Ability, Popularity/General, Popularity/Opposite Sex, and Mechanical Ability), there is considerable confidence that the cadets who later separated, and those who later graduated, could be considered as random samples from the same population. On the other eight traits, high confidence cannot be held either way as to whether those who later left were different from those who later graduated.

Finally, all five of the traits on which lost cadets rated higher at entrance than graduating cadets, were near the bottom of the list (Artistic Ability and Originality, Sensitivity to Criticism, and Stubbornness, and a Political Liberalism dimension).

The general tenor of these differences lends further support to a generalization that has been made or implied in most intensive research reports on attrition--a primary cause of attrition is dissonance between the personal characteristics of the cadet--his abilities, values, and interests--and the demands of the USMA environment (Bridges, 1975; and GAO, 1976).

4. The Accuracy and Validity of Cadet's Self-evaluations. At graduation, a cadet's evaluation of his Academic Ability relative to that of other college graduates is surpassed only by his confidence in his Leadership Ability, but the marked drop in his perception of his relative Academic Ability raises some important questions. To what extent does the drop merely reflect a correction of an inflated self-evaluation at entrance? How accurate are these self-evaluations? In a few areas there are reliable external test data on actual performance by new cadets, by other college freshmen, and by national samples of high school students, that can be used to determine the general validity of the self-evaluations in the respective groups.

Briefly, entering cadets typically tend to appreciably underestimate their actual mathematical, and general academic abilities relative to other students the same age. In self-evaluations of other traits, entering cadets seem to be much more accurate when evaluating themselves, relative to other students the same age.*

Data also are available, relative to cadets' self-evaluations of their academic ability at graduation. Shortly before graduation, only 77% of the Class judged their academic ability to be higher than that of other college seniors. Data on the Defense Officer Record Examination (DORE) and the similar Graduate Record Examination (GRE) provide some additional basis for determining whether the self-confidence of the Class in the academic area truly has been undermined. A report, entitled "The Performance of USMA Graduates in the Classes of 1967, 1968 and 1969 on the Defense Officer Record Examination," (Hecox, 1970) provides considerable data on the comparability of the graduates of USMA and of the other service academies with norms based on national population of college graduates who took the GRE as candidates for, or students in, graduate schools. This is a much more highly select group, relative to the total college graduate population than is the college-going group, relative to all high school seniors. It also provides some useful comparisons between total Army officer procurement, USMA graduates, and ROTC sources.

Among all the Army officers commissioned in 1969, only 26% had GRE Quantitative scores above 600, but 88% of those from USMA, and 28% of those from ROTC sources, were in this superior group. These are compared with the 42% of all male graduate school examinees, nationally, who had such high quantitative ability. In GRE Verbal Ability scores, the percent of Firstclassmen above 600 was not so outstanding, but unlike officers from ROTC sources, still was not low, as compared to all male graduate school candidates, nationally. The USMA's graduate mean of 550 was appreciably higher than the 511 mean made by the national male group. This national norm group is so highly select that it does not

*The essential data for some comparisons of levels on actual performance with levels on self-evaluations are presented in Parts A, B, C, and D of the Appendix.

provide a precise additional standard for appraising the accuracy of the graduating cadets' evaluation of their relative academic ability. However, the mean GRE quantitative score of 684 has a percentile rank of 79, even in such a highly select national group. This does tend to lend additional credence to a conclusion that the graduating cadets especially underestimated their relative academic ability in the mathematics area.

Further evidence on the validity of these self-evaluations and on some of the correlates related to their academic self-evaluations as plebes, as Firstclassmen, and to changes, is provided by the correlations of self-evaluations with relevant demographic data, and external appraisals of their performance. In general, the variables that logically should be related have highly significant correlation coefficients. Cadets' CEER scores had a correlation with their academic ability self-evaluations of .58 as Fourthclassmen, and of .52 as Firstclassmen. Their final GPA correlated .41 with 4⁰ self-evaluations and .65 with 1⁰ ones. The correlations with average high school grades were .49 for 4⁰ self-evaluations and .36 for 1⁰ self-evaluations of academic ability. CEER's correlation of .72 with final academic average provides a good standard for comparison.

Their LES at graduation correlated .13 with self-evaluation of their leadership ability at entrance, and rose to .35 with similar self-evaluations at graduation. Since there is only 12% overlap, it is clear that graduating cadets do not tend to consider their military LES to be a valid measure of their general leadership ability.

Their PE average grade correlated .19 with 4⁰ athletic ability self-evaluations, and .32 with 1⁰ ones. Their PAE had correlations with athletic ability self-evaluations of .44 at entrance, and .32 at graduation. These compare with PAE correlations of .33 with final PE average, and of .18 with 1⁰ LES.

General Observations

Some compensating fluctuations are to be expected in the self-evaluations of cadets at entrance and at graduation. New cadets from the more select secondary schools should rate themselves lower in relevant traits than their "true" relative ability warrants. Conversely, those from secondary schools with a student body lower than the national average on a given trait are expected to have self-evaluations that are unrealistically high. Those from average but small schools probably tend to reflect the "big frog-in-a-small-pond" syndrome. For all of such cadets, the competitive evaluations at West Point should result in much more realistic evaluations at graduation than at entrance.

On important personal traits, West Point cadets, at entrance, tend to differ in the desired directions, from students entering civilian colleges--those that don't tend to change or leave. By the time they graduate, cadets' self-evaluations have moved even further in the desired direction on most of the important personal traits. The major exception appears to be a sharp decrease in their evaluation of their academic ability. This area needs much more intensive investigation and effective remedial action. The important relative goal is not graduates with a high perception of their academic ability. However, that USMA graduates have at least reasonably accurate perception of, and confidence in, their academic ability does seem to be important. The collective import of these data, and the other research mentioned herein, leads to one important generalization--USMA is a source of Army officers having many desired characteristics.

Although this report includes data only on the Class of 1975, data on the entering classes for many years have been given regularly in ODIR reports from the ACE Student Information Form. These indicate that, in general, entering classes can be considered comparable on the 21 traits studied in this report. Fluctuations from year to year in self-evaluations on these traits have tended to be relatively minor.

This study provides a basis for evaluating the effects on cadets' self-confidence of changes in USMA's programs. The effect of the recent and imminent changes, in USMA's academic and military programs, on the four-year changes in cadets' self-evaluations probably can be determined by replication of this study after several years. However,

there seems to be some basis for reasonable analyses and hypotheses, at least in the academic area. Changes in the grading procedure, such as substituting coarser units for the finer units previously averaged, might reduce competitiveness and perhaps also the accuracy of the perception of cadets' level of academic success. Many such hypotheses could be entertained and analyzed. However, some data germane to the academic area are available. The tenor of discussions (by Firstclassmen, and with graduates) of the USMA's academic courses, even in mathematics, indicates that the intellectual atmosphere at USMA is not perceived as providing adequate stimulation and opportunity for growth in the academic area.

An April 1976 report, on the exchange visits by cadets of the three service academies, showed that all groups of visitors from, and USMA cadets at, the USAFA and the USNA perceived West Point as having the least intellectual atmosphere of the three academies (Priest, 1976). Will the changes completely correct the typical loss in self-confidence of the cadet group in their mathematical and general academic abilities?

A few general points seem to stand out. First, as a rule, cadets generally know they are good; but they don't realize how good they actually are in some areas. More intense analyses along the lines initiated by Butler (1977) should help throw some more light on the fact that, at entrance, cadets tend to underestimate their true mathematical and general academic abilities, relative to other students; and after four years at West Point, their relative underevaluation in these areas appears to have become more marked. Dr. Butler found that, although the Class of 1977 considered more than minimum "academic ability" to be an "important" requirement for graduation from USMA, 72% of the 47 personal qualities listed were rated as even more important. Only 12 of this long list of personal qualities were rated lower in importance than academic ability. However, the factor structure and factor scores are needed to determine more precisely the import of his findings.

Incidentally, the data analyses for the current report suggest that, in general, students entering USMA tend to be somewhat more accurate in evaluating their traits relative to other students, than is typical of other 4-year college freshmen, nationally.

Summary of Major Findings and Conclusions

1. Entering West Point cadets typically have realistically higher self-confidence than do men in other Freshman classes, nationally; but they still tend to underestimate their excellence in some abilities important to success at USMA.
2. As a whole, their self-confidence tends to increase while at West Point, especially in the traits on which entering cadets are most different from four-year college men.
3. Entering cadets who later separate from West Point tend to be more like civilian college men than do those who later graduate.
4. More intensive analyses of the basic underlying structure of self-evaluations both at entrance and at graduation, and of graduating cadets' perception of the characteristics important for graduation, should help provide a better understanding of the relevant dynamics involved in attrition, and in the cadet's changed self-perception while at West Point.
5. Even though cadet self-evaluations of their academic ability and mathematical ability tend to be lower than their measured abilities at entrance, they still tend to drop appreciably by the time cadets graduate--further intensive study seems to be warranted.
6. The pattern of changes in these cadets' traits is not typical of those usually occurring in the national college population. Characteristically, they are more conservative than other college students at entrance, and become even more conservative by graduation; whereas, typically, college students become much more liberal.

Implications for Action

1. If even more realistic self-evaluations are desired, actions should be taken to more effectively provide cadets with specific information on the distribution of selected special abilities in the Corps, as compared with the distribution among four-year college students, nationally. This should not be a one-shot deal but should be repeated at intervals judged to be most effective. To help provide for more realistic self-evaluation of ability in the selected areas, information also should be provided to the Corps on the comparable distributions of abilities among students at the more select universities. Data can be selected from ODIR's annual comparisons of new Cadets at USMA with entering Freshmen at other colleges, for this purpose.
2. An appropriate research design should be developed, and self-evaluations of abilities and other traits should be obtained from cadets periodically for a few years to monitor and evaluate the effects of actions and changes now taking place at USMA.

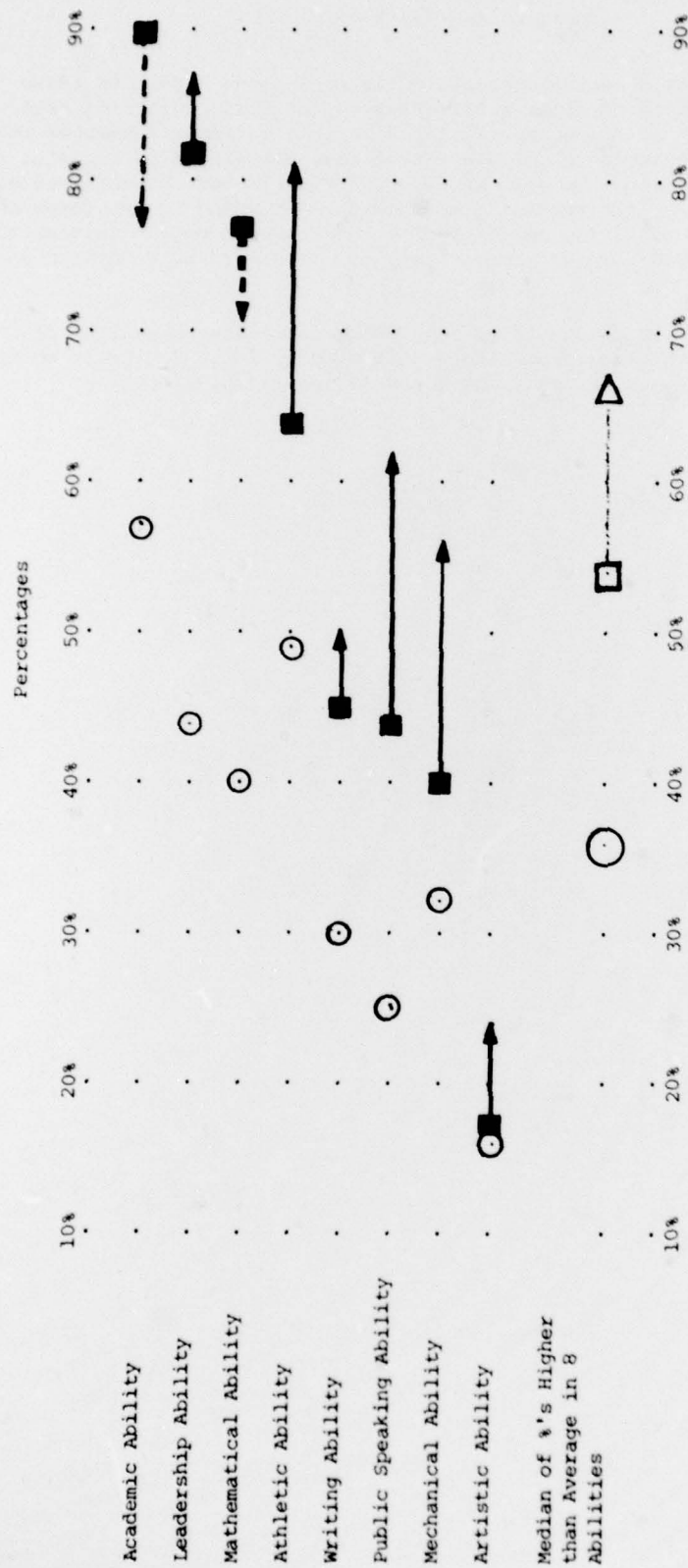


FIGURE 1. THE PERCENTAGE OF CADETS WITH HIGHER THAN AVERAGE SELF-EVALUATIONS OF THEIR ABILITY IN EIGHT AREAS WHEN ENTERING (●) AND WHEN GRADUATING (■) FROM WEST POINT, AND PERCENTAGES FOR MALES ENTERING FOUR-YEAR COLLEGES COLLEGES NATIONALLY (△).

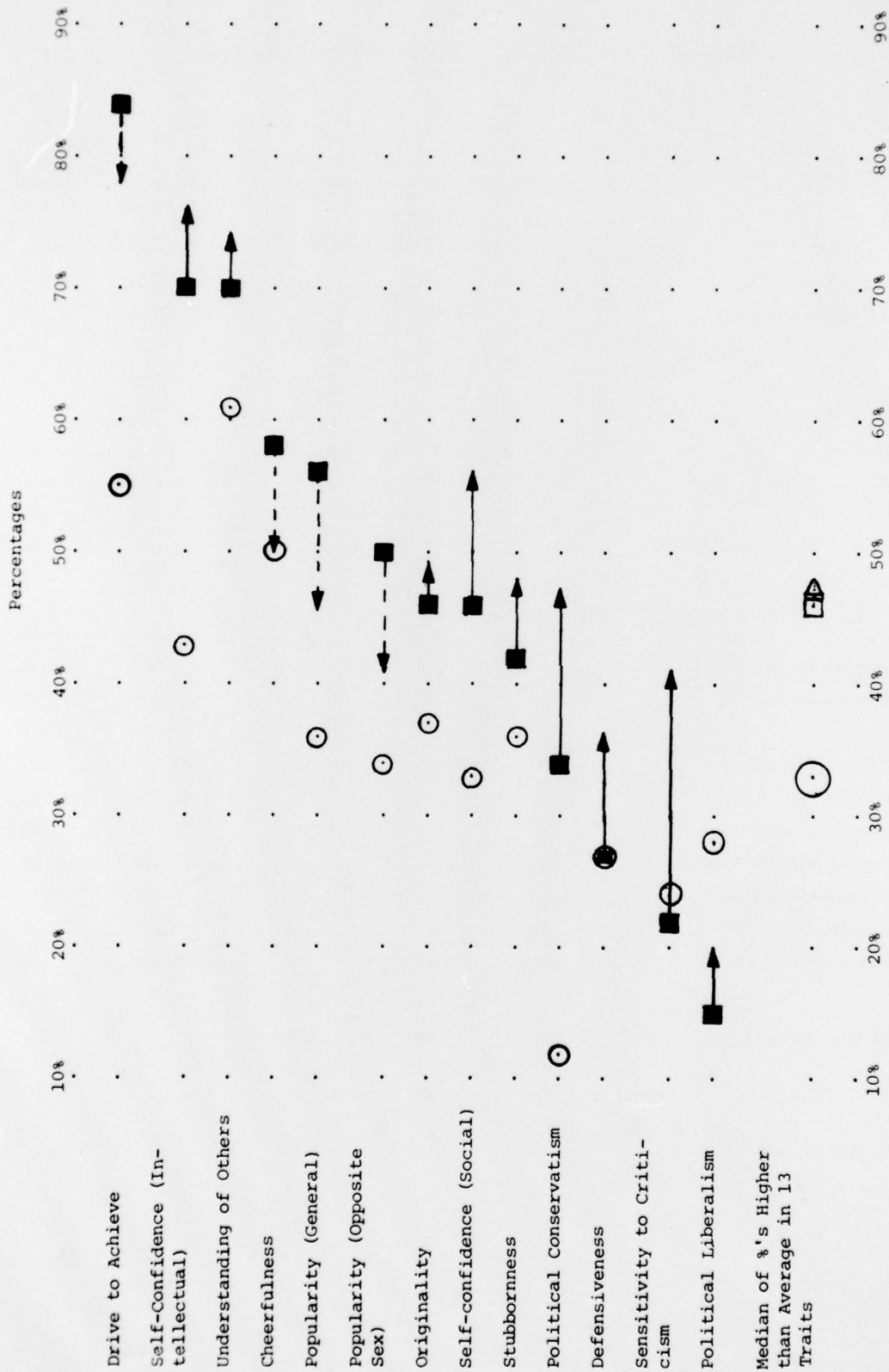


FIGURE 2. THE PERCENTAGE OF CADETS AND OTHER COLLEGE STUDENTS WITH SELF-EVALUATIONS OF HIGHER THAN AVERAGE ON THIRTEEN SPECIFIC PERSONAL TRAITS.

TABLE 1
RELATIONSHIP BETWEEN SELF-EVALUATIONS AT ENTRANCE
AND AT GRADUATION

Trait	% Whose Self-evaluations:			Change in Means (1 ⁰ - 4 ⁰)	Corre- lation (r) 1 ⁰ - 4 ⁰
	Increased	Remained Same	Decreased		
(1) Mechanical Ability	42%	42%	16%	0.363	.48
(2) Public Speaking Ability	41	46	14	0.356	.46
(3) Sensitivity to Criticism	43	37	20	0.327	.16
(4) Artistic Ability	37	48	15	0.319	.48
(5) Athletic Ability	37	48	15	0.264	.48
(6) Leadership Ability	39	44	17	0.240	.29
(7) Political Conservatism	37	39	24	0.190	.30
(8) Stubbornness	35	42	23	0.154	.33
(9) Self-confidence/Social	36	41	23	0.143	.39
(10) Defensiveness	35	41	24	0.113	.27
(11) Self-confidence/Intellec- tual	29	48	23	0.091	.34
(12) Understanding of Others	28	51	20	0.048	.32
(13) Writing Ability	31	45	24	0.046	.41
(14) Originality	27	48	26	-0.015	.38
(15) Political Liberalism	30	41	29	-0.031	.37
(16) Drive to Achieve	24	49	26	-0.061	.35
(17) Mathematical Ability	19	53	28	-0.094	.50
(18) Popularity/Opposite Sex	19	49	33	-0.189	.46
(19) Popularity/General	17	50	32	-0.192	.38
(20) Cheerfulness	21	45	34	-0.200	.44
(21) Academic Ability	11	56	32	-0.265	.50
Median Percent	31	46	23		
Mean Percent	30	46	24		
Standard Deviation	9.1	4.8	6.2		

TABLE 2

PERCENT OF SELECTED GROUPS WITH SELF-RATINGS HIGHER THAN
"AVERAGE" ON PERSONAL TRAITS

U.S. Military Academy, CL '75							
Trait	ACE 4-Year College Men	Total 4th Class			Sample		
		All Sep.	P [*] t	All Grad.	4 ^o	P ^{**}	1 ^o
(1) Academic Ability	56%	82%	.001	91%	90%	.001	77%
(2) Leadership Ability	44	77	.01	83	82	.08	87
(3) Drive to Achieve	55	75	.001	83	84	.03	78
(4) Mathematical Ability	40	63	.001	75	77	.06	71
(5) Self-confidence/Intellectual	43	68	.30	71	70	.10	76
(6) Athletic Ability	49	68	.75	67	64	.001	81
(7) Understanding of Others	61	70	.30	67	70	.16	74
(8) Cheerfulness	50	60	.23	56	58	.01	50
(9) Popularity/General	36	55	.91	55	56	.002	46
(10) Popularity/Opposite Sex	34	51	.70	50	50	.007	41
(11) Self-confidence/Social	33	50	.15	46	46	.003	56
(12) Writing Ability	30	49	.33	47	45	.19	50
(13) Originality	37	51	.01	44	46	.41	49
(14) Public Speaking Ability	25	41	.25	44	44	.001	62
(15) Stubbornness	36	48	.04	42	42	.08	48
(16) Mechanical Ability	32	40	.90	38	40	.001	56
(17) Political Conservatism	12	26	.09	31	34	.001	47
(18) Defensiveness	27	29	.25	26	27	.03	36
(19) Sensitivity to Criticism	24	29	.02	23	22	.001	41
(20) Political Liberalism	28	27	.001	17	15	.10	20
(21) Artistic Ability	16	19	.04	15	17	.001	24
N	45,000	450		831	330		330

*The probability that the two groups have the same mean (t-test).

**The significance of difference in percent "Above Average" when 4⁰ vs. 1⁰ was tested using the McNemar Test for the significance of changes (Siegel, pp. 63-67).

(Note: Percents with common underscore can, with confidence, be considered to be samples from comparable populations.)

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APPENDIX

THE ACCURACY OF SELF-EVALUATIONS ON SELECTED TRAITS

Part A. Actual Performance on SAT (External Evaluations Against National H.S. Population)

National H.S. Population Levels	SAT - Verbal				SAT - Mathematics			
	Nat. H.S. Pop.	Score Range	Male College- Bound Seniors	USMA CL '75	Nat. H.S. Pop.	Score Range	Male College- Bound Seniors	USMA CL '75
Top 10%	10%	526-800	28%	65%	10%	565-800	33%	80%
Next 21%	21%	424-525	31%	32%	21%	453-564	34%	18%
(High)	(31%)	(424-800)	(59%)	(97%)	(31%)	(453-800)	(67%)	(98%)
Average	38%	293-423	35%	3%	38%	320-452	27%	1%
(Low)	(31%)	(200-292)	(6%)	(0%)	(31%)	(200-319)	(6%)	(0%)
N	18,000		523,758	1,329	18,000		523,700	1,329
Mean Score	368		454	554	402		505	622
SD	111		112	78	112		118	70

Part B. Self-evaluations in Academic Area

Levels	Academic Ability		Mathematical Ability		
	USMA CL '75	ACE 4-Yr. Col. Males	Col. Bd. Srs.	USMA CL '75	ACE 4-Yr. Col. Males
Top 10%	37%	NA	31%	27%	NA
Above Average	53%	NA	28%	50%	NA
(High)	(89%)	(57%)	(59%)	(77%)	(40%)
Average	9%	NA	32%	20%	NA
(Low)	(1%)	(NA)	(9%)	(4%)	(NA)
N	330	45,000	299,422	330	45,000

APPENDIX (Continued)

Part C. Comparison of Participation in Athletics with Self-evaluations of Athletic Ability for Two National Samples and USMA. (College-bound senior participation data obtained in 1973; other data in 1971.)

Participation Level	CEEB Col.- Bound Srs.	ACE 4-Yr. Col.	Entering CL '75 USMA	Self-rated Athletic Ability Level	CEEB Col.- Bound Srs.	ACE 4-Yr. Col.	Grads in CL '75 USMA
2 or More Var- sity Letters	18%	*	*	Top 10%	32%	*	20%
1 Varsity Letter	21%	*	*	Above Avg.	31%	*	44%
(1 or More Letters)	(40%)	(53%)	(77%)	(Higher than Average)	(63%)	(49%)	(64%)
Varsity, No Letter	16%	*	9%	Average	31%	*	32%
				(Lower than Average)	(6%)	*	(4%)
Only Individual/ Intramural	31%	*	6%	Below Avg.	*	*	4%
No Participation	13%	*	9%	Bottom 10%	*	*	-
N	384,948	45,000	1,329		299,422	45,000	330

*Data not available.

APPENDIX (Continued)

Part D. Comparison of the Distributions of Self-ratings by 330 USMA New Cadets in 1971 who Later Graduated, with Self-ratings by Two National Male Populations.* (Percent of Group Rating Self at Each Level, as Compared with Others the Same Age.)

Levels of Others Same Age	Art			Mechanics			Writing			Leadership		
	CEEB	ACE	USMA	CEEB	ACE	USMA	CEEB	ACE	USMA	CEEB	ACE	USMA
	Col. Bd. Srs.	4-Yr. Col. Fresh.										
Top 10%	11	NA	3	20		10	19		7	32		24
Above Avg. (21%)	19	NA	13	29		30	30		39	34		58
(High 31%)	(30)	(16)	(16)	(49)	(32)	(40)	(49)	(30)	(46)	(66)	(44)	(82)
Average (38%)	42	NA	30	39		40	40		44	31		16
Less Than Avg. (31%)	28	NA	54	12		20	11		10	3		1

*Data based on 299,442 "College-bound Seniors, 1971-72," who completed College Entrance Examination Board's Student Data Questionnaire, and of 45,000 for American Council on Education's stratified sample of four-year college Freshmen.

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20. ABSTRACT (Continue on reverse side if necessary and identify by block number) Comparisons of the self-evaluations by cadets in the Class of 1975 at entrance, and again shortly before graduation, indicate that in 15 of 21 personal traits, cadets' self-evaluations tend to increase during the four years at USMA. However, though remaining high, their self-confidence typically drops significantly in their academic and mathematical abilities, in popularity with the opposite sex, popularity/general, and in cheerfulness. Self-rated leadership, public speaking, and athletic abilities significantly increase. At entrance, a larger percentage of cadets than of other college freshmen are higher than average in all traits except defensiveness, sensitivity to criticism, political liberalism, and artistic ability. Cadets' overall pattern of changes is not typical of those normally occurring in college students, nationally. At entrance, cadets who later separated differed significantly from those who later graduated. A smaller proportion of separated cadets than of graduated cadets perceived themselves as being higher than average in academic ability, leadership ability, drive to achieve, and mathematical ability--a larger proportion of separated cadets were higher than average in stubbornness, sensitivity to criticism, political liberalism, originality, and artistic ability. Objective external data indicated that, as a whole, the cadets' self-evaluations tended to be quite realistic and valid. Implications for action are presented.		

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